

November 29, 2012

Duke Energy Miami Fort Generating Station 11021 Brower Road North Bend, OH 45052

Attention: Ms. Tara Thomas

**Environmental Coordinator** 

Re: Results – **November 2012**Low-Level Mercury Sampling
Miami Fort Generating Station
North Bend, Ohio

In accordance with your request, URS prepared the following letter report transmitting low-level mercury test results for samples collected at the Miami Fort Generating Station located in North Bend, Ohio.

The scope of work involved the sampling of intake and discharge waters from the following sources and analysis of those samples for low-level mercury.

- 1. River Intake
- 2. Station 601 (WWT Influent)
  [Samples were collected at this station one detention time (approximately 14 hours as specified by Duke Energy) before samples collected at Outfall 608]
- 3. Outfall 608 (WWT Effluent)
  [Samples were collected at this outfall one detention time (approximately 14 hours as specified by Duke Energy) after samples collected at station 601]
- 4. Outfall 002 (Pond B Discharge)

Each sample was collected following the required Method 1669: Sampling Ambient Water for Determination of Trace Metals at EPA Water Quality Criteria Levels (Sampling Method) and analyzed by Method 1631. At the request of Duke Energy, a dissolved low-level mercury sample was collected by Method 1669 from Outfall 608 and analyzed by Method 1631. The collected dissolved sample was filtered at the laboratory utilizing 0.45 micron filtration. Also at the request of Duke Energy, total metal mercury sample aliquots (preserved) from Station 601 (Unit 7 and 8) were used to have the laboratory pipet off and prepare the supernatant layer of the samples (leaving behind as much of the settled solids as possible) for analysis by Method 7470A.

Field staff from URS' Cincinnati office conducted the sampling and TestAmerica Laboratories Inc. located in North Canton, Ohio performed the analytical procedures. The analytical procedures included the analyses of a collected sample and duplicate sample



Duke Energy November 29, 2012 Page 2

(duplicates collected at Outfall 608 and Outfall 002), field blank (field blanks collected at the River Intake, Outfall 608, and Outfall 002), and trip blank.

The results from the **November 5 and 6, 2012** sampling events are presented in the attached Table 1. A copy of the laboratory report is enclosed with this letter.

--ooOoo--

URS is pleased to provide continued assistance to Duke Energy in the execution of their environmental monitoring requirements. If there are any questions regarding the content of this report, please do not hesitate to contact the undersigned.

Sincerely,

**URS** Corporation

Michael A. Wagner Project Manager

Dennis P. Connair, C.P.G.

Principal

MAW/DPC/Duke Energy-MFS LL Hg 2012 Job No. 14950516

TABLE 1

ANALYTICAL RESULTS
LOW-LEVEL MERCURY
RIVER INTAKE, STATION 601, OUTFALL 608, AND OUTFALL 002 (POND B)

# DUKE ENERGY - MIAMI FORT STATION NORTH BEND, OHIO

		Date Sa	ampled / Results	(ng/L, parts per t	crillion)	
Sample ID	1/3-4/2012	2/2-3/2012	3/1-2/2012	4/2-3/2012	5/1-2/2012	6/5-6/2012
River Intake	7.9	6.1	3.9	4.0	3.9	2.2
Station 601 (7)	360,000	100,000	1,300,000	85,000	590,000	180,000
Station 601 (7)*	570	6,000	54,000	68,000	110,000	670
Station 601 (7)* [duplicate]	200	Not Collected	55,000	66,000	110,000	Not Collected
Station 601 (8)	210,000	68,000	830,000	310,000	Off Line	140,000
Station 601 (8)*	420	5,300	110,000	75,000	Off Line	1,000
Station 601 (8)*[duplicate]	Not Collected	3,500	Not Collected	Not Collected	Off Line	880
Outfall 608	60	89	48	120	170	210
Outfall 608 [duplicate]	65	85	49	120	200	200
Outfall 608 [dissolved, 0.45 micron]	2.9	26	1.6 H	0.53 B	61	64
APB-002	3.2	3.7	2.9	4.8	4.2	2.7
APB-002 [duplicate]	3.3	3.5	3.6	4.6	4.0	2.5
Field Blank (RI-FB)	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Field Blank (WWT-FB)	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Field Blank (AP-FB)	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Trip Blank	< 0.50	<0.50	<0.50	<0.50	< 0.50	< 0.50

Samples collected by URS. Samples analyzed by TestAmerica of North Canton, Ohio.

Sampling times are noted within the associated laboratory report for each collected sample

B = Compound was found in blank and sample

<sup>\* =</sup> Total mercury analysis utilizing Method 7470A [results converted from ug/L (parts per billion) to ng/L]. The aqueous layer of the sample was pipetted off and prepared, with care to leave behind as much of the settled solids as possible.

H = Sample was prepped or analyzed beyond the specified holding time

TABLE 1 (continued)

	Date Sampled / Results (ng/L, parts per trillion)								
Sample ID	7/5-6/2012	8/1-2/2012	9/4-5/2012	10/1-2/2012	11/5-6/2012	12/x/2012			
River Intake	1.6	1.6	1.1	2.5^	4.9				
Station 601 (7)	240,000	360,000	230,000	400,000	210,000				
Station 601 (7)*	8,100 B	1,200	2,000	21,000	720,000				
Station 601 (7)* [duplicate]	6,400 B	890	Not Collected	19,000	Not Collected				
Station 601 (8)	460,000	260,000	320,000	420,000	210,000				
Station 601 (8)*	10,000 B	<200	670	8,500	1,600				
Station 601 (8)*[duplicate]	Not Collected	Not Collected	380	Not Collected	1,600				
Outfall 608	240	78	9.5 / 49**	300	39				
Outfall 608 [duplicate]	220	82	10 / 46**	300	38				
Outfall 608 [dissolved, 0.45 micron]	29 H	19	7.5	6.6	3.2				
APB-002	2.5	2.1	3.8	2.4	6.4				
APB-002 [duplicate]	2.5	2.0	4.1	2.5	6.3				
Field Blank (RI-FB)	< 0.50	< 0.50	1.2	1.9^	< 0.50				
Field Blank (WWT-FB)	< 0.50	< 0.50	<0.50 / <0.50**	< 0.50	< 0.50				
Field Blank (AP-FB)	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50				
Trip Blank	<0.50	< 0.50	<0.50/<0.50**	< 0.50	<0.50				

Samples collected by URS

Samples analyzed by TestAmerica of North Canton, Ohio

Sampling times are noted within the associated laboratory report for each collected sample.

B = Compound was found in blank and sample

<sup>\* =</sup> Total mercury analysis utilizing Method 7470A [results converted from ug/L (parts per billion) to ng/L]. The aqueous layer of the sample was pipetted off and prepared, with care to leave behind as much of the settled solids as possible.

<sup>\*\* =</sup> Outfall 608 re-sampled 9/30/2012 at request of Duke Energy.

 $<sup>\</sup>Lambda$  = The closing CCB failed high: Instrument related QC exceeds the control limit.



THE LEADER IN ENVIRONMENTAL TESTING

# **ANALYTICAL REPORT**

TestAmerica Laboratories, Inc.

TestAmerica Canton 4101 Shuffel Street NW North Canton, OH 44720 Tel: (330)497-9396

TestAmerica Job ID: 240-17101-1

Client Project/Site: Duke MF LLHg 2012 - J12110130

Revision: 1

For:

Duke Energy Corporation 139 East Fourth Street Cincinnati, Ohio 45202

Attn: Ms. Sue Wallace

Authorized for release by: 11/23/2012 11:45:04 AM

Denise Pohl

Project Manager II denise.pohl@testamericainc.com

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Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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# **Definitions/Glossary**

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2012 - J12110130

Toxicity Equivalent Quotient (Dioxin)

TestAmerica Job ID: 240-17101-1

### **Qualifiers**

### Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
F	MS or MSD exceeds the control limits

### **Glossary**

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
<u></u>	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)

TestAmerica Canton

#### **Case Narrative**

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2012 - J12110130

TestAmerica Job ID: 240-17101-1

Job ID: 240-17101-1

Laboratory: TestAmerica Canton

Narrative

#### **CASE NARRATIVE**

Client: Duke Energy Corporation

Project: Duke MF LLHg 2012 - J12110130

Report Number: 240-17101-1

#### Revised

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

Revision 11-23-2012: Revision includes additional appearance information for sample 601(7)WWT TOT (240-17101-5).

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

#### RECEIPT

The samples were received on 11/03/2012; the samples arrived in good condition and properly preserved. The temperature of the cooler at receipt was 14.2 C.

#### **DISSOLVED LOW LEVEL MERCURY**

Sample 608 WWT DISSOLVED (240-17101-11) was analyzed for dissolved low level mercury in accordance with EPA Method 1631E. The samples were prepared on 11/05/2012 and analyzed on 11/06/2012.

Sample 608 WWT DISSOLVED (240-17101-11)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the Low Level Mercury analysis.

All quality control parameters were within the acceptance limits.

TestAmerica Canton 11/23/2012

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#### **Case Narrative**

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2012 - J12110130

TestAmerica Job ID: 240-17101-1

#### Job ID: 240-17101-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

#### **TOTAL MERCURY**

Samples 601(8)WWT TOT (240-17101-2), 601(8)WWT TOT DUP (240-17101-3) and 601(7)WWT TOT (240-17101-5) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 11/07/2012 and 11/20/2012 and analyzed on 11/09/2012 and 11/21/2012.

Sample 601(7)WWT TOT (240-17101-5) had a pale purple color and there was a slight odor to the sample that was different from other samples.

Sample 601(7)WWT TOT (240-17101-5)[100X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Method 7470A: Per client instructions, the aqueous layer of the sample was pipetted off and prepared for samples 601(7)WWT TOT, 601(8)WWT TOT and 601(8)WWT TOT DUP with care to leave behind as much of the settled solids as possible

No difficulties were encountered during the mercury analyses.

All quality control parameters were within the acceptance limits.

#### **LOW LEVEL MERCURY**

Samples 601(8)WWT (240-17101-1), 601(7)WWT (240-17101-4), RI FB (240-17101-6), RI (240-17101-7), 608 WWT FB (240-17101-8), 608 WWT (240-17101-9), 608 WWT DUP (240-17101-10), OUTFALL 002 FB (240-17101-12), OUTFALL 002 (240-17101-13), OUTFALL 002 DUP (240-17101-14) and TRIP BLANK (240-17101-15) were analyzed for Low Level Mercury in accordance with EPA Method 1631E. The samples were prepared on 11/08/2012 and analyzed on 11/13/2012.

Mercury failed the recovery criteria low for the MS/MSD of sample OUTFALL 002MS/MSD (240-17101-13) in batch 240-64803.

Refer to the QC report for details.

Samples 601(8)WWT (240-17101-1)[200000X], 601(7)WWT (240-17101-4)[200000X], 608 WWT (240-17101-9)[10X] and 608 WWT DUP (240-17101-10)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the Low Level Mercury analyses.

All other quality control parameters were within the acceptance limits.

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# **Method Summary**

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2012 - J12110130

TestAmerica Job ID: 240-17101-1

Method	Method Description	Protocol	Laboratory
1631E	Mercury, Low Level (CVAFS)	EPA	TAL NC
7470A	Mercury (CVAA)	SW846	TAL NC

#### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL NC = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

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# **Sample Summary**

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2012 - J12110130

TestAmerica Job ID: 240-17101-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-17101-1	601(8)WWT	Water	11/01/12 17:40	11/03/12 08:45
240-17101-2	601(8)WWT TOT	Water	11/01/12 17:50	11/03/12 08:45
240-17101-3	601(8)WWT TOT DUP	Water	11/01/12 17:45	11/03/12 08:45
240-17101-4	601(7)WWT	Water	11/01/12 18:00	11/03/12 08:45
240-17101-5	601(7)WWT TOT	Water	11/01/12 18:05	11/03/12 08:45
240-17101-6	RI FB	Water	11/01/12 18:15	11/03/12 08:45
240-17101-7	RI	Water	11/01/12 18:20	11/03/12 08:45
240-17101-8	608 WWT FB	Water	11/02/12 08:25	11/03/12 08:45
240-17101-9	608 WWT	Water	11/02/12 08:30	11/03/12 08:45
240-17101-10	608 WWT DUP	Water	11/02/12 08:35	11/03/12 08:45
240-17101-11	608 WWT DISSOLVED	Water	11/02/12 08:40	11/03/12 08:45
240-17101-12	OUTFALL 002 FB	Water	11/02/12 09:25	11/03/12 08:45
240-17101-13	OUTFALL 002	Water	11/02/12 09:30	11/03/12 08:45
240-17101-14	OUTFALL 002 DUP	Water	11/02/12 09:35	11/03/12 08:45
240-17101-15	TRIP BLANK	Water	11/02/12 00:00	11/03/12 08:45

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TestAmerica Job ID: 240-17101-1

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2012 - J12110130

Client Sample ID: 601(8)WWT Lab Sample ID: 240-17101-1

 Analyte
 Result
 Qualifier
 RL
 Unit
 Dil Fac
 D
 Method
 Prep Type

 Mercury
 210000
 100000
 ng/L
 200000
 1631E
 Total/NA

Client Sample ID: 601(8)WWT TOT Lab Sample ID: 240-17101-2

 Analyte
 Result
 Qualifier
 RL
 Unit
 Dil Fac
 D
 Method
 Prep Type

 Mercury
 1.6
 0.20
 ug/L
 1
 7470A
 Total/NA

Client Sample ID: 601(8)WWT TOT DUP

Lab Sample ID: 240-17101-3

 Analyte
 Result
 Qualifier
 RL
 Unit
 Dil Fac
 D
 Method
 Prep Type

 Mercury
 1.6
 0.20
 ug/L
 1
 7470A
 Total/NA

Client Sample ID: 601(7)WWT Lab Sample ID: 240-17101-4

 Analyte
 Result
 Qualifier
 RL
 Unit
 Dil Fac
 D
 Method
 Prep Type

 Mercury
 210000
 100000
 ng/L
 200000
 1631E
 Total/NA

Client Sample ID: 601(7)WWT TOT Lab Sample ID: 240-17101-5

AnalyteResult<br/>MercuryQualifierRL<br/>20Unit<br/>ug/LDil Fac<br/>100D<br/>7470APrep Type<br/>7610/NA

Client Sample ID: RI FB Lab Sample ID: 240-17101-6

No Detections

Client Sample ID: RI

Lab Sample ID: 240-17101-7

AnalyteResult<br/>MercuryQualifierRLUnitDil Fac<br/>ng/LDMethodPrep Type1631ETotal/NA

Client Sample ID: 608 WWT FB Lab Sample ID: 240-17101-8

No Detections

Client Sample ID: 608 WWT Lab Sample ID: 240-17101-9

AnalyteResultQualifierRLUnitDil FacDMethodPrep TypeMercury395.0ng/L101631ETotal/NA

Client Sample ID: 608 WWT DUP

Lab Sample ID: 240-17101-10

 Analyte
 Result
 Qualifier
 RL
 Unit
 Dil Fac
 D
 Method
 Prep Type

 Mercury
 38
 5.0
 ng/L
 10
 1631E
 Total/NA

Client Sample ID: 608 WWT DISSOLVED Lab Sample ID: 240-17101-11

AnalyteResult<br/>MercuryQualifierRLUnitDil Fac<br/>ng/LDMethodPrep TypeMercury3.21.0ng/L21631EDissolved

## **Detection Summary**

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2012 - J12110130

TestAmerica Job ID: 240-17101-1

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Client Sample ID: OUTFALL 002 FB

Lab Sample ID: 240-17101-12

No Detections

Client Sample ID: OUTFALL 002 Lab

Lab Sample ID: 240-17101-13

Client Sample ID: OUTFALL 002 DUP

Lab Sample ID: 240-17101-14

 Analyte
 Result
 Qualifier
 RL
 Unit
 Dil Fac
 D
 Method
 Prep Type

 Mercury
 6.3
 0.50
 ng/L
 1
 1631E
 Total/NA

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-17101-15

No Detections

TestAmerica Canton

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2012 - J12110130

TestAmerica Job ID: 240-17101-1

Client Sample ID: 601(8)WWT

Lab Sample ID: 240-17101-1 Date Collected: 11/01/12 17:40 Matrix: Water

Date Received: 11/03/12 08:45

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	210000	100000	na/L		11/08/12 08:45	11/13/12 08:41	200000

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2012 - J12110130

TestAmerica Job ID: 240-17101-1

Client Sample ID: 601(8)WWT TOT Lab Sample ID: 240-17101-2

Date Collected: 11/01/12 17:50 Matrix: Water

Date Received: 11/03/12 08:45

Method: 7470A - Mercury (CVAA)							
Analyte	Result Qualif	fier RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.6	0.20	ug/L		11/07/12 14:35	11/09/12 10:42	1

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Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2012 - J12110130

TestAmerica Job ID: 240-17101-1

Lab Sample ID: 240-17101-3

Matrix: Water

Client Sample ID: 601(8)WWT TOT DUP Date Collected: 11/01/12 17:45

Date Received: 11/03/12 08:45

Method: 7470A - Mercury (CVAA)								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.6		0.20	ug/L		11/07/12 14:35	11/09/12 10:44	1

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2012 - J12110130

TestAmerica Job ID: 240-17101-1

Client Sample ID: 601(7)WWT Lab Sample ID: 240-17101-4

Date Collected: 11/01/12 18:00 Matrix: Water

Date Received: 11/03/12 08:45

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac

 Mercury
 210000
 100000
 ng/L
 11/08/12 08:45
 11/13/12 08:46
 200000

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Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2012 - J12110130

TestAmerica Job ID: 240-17101-1

Client Sample ID: 601(7)WWT TOT

Date Collected: 11/01/12 18:05 Date Received: 11/03/12 08:45 Lab Sample ID: 240-17101-5

. Matrix: Water

Method: 7470A - Mercury (CVAA)

 Analyte
 Result Mercury
 Qualifier
 RL 20
 Unit ug/L
 D 20
 Prepared Prepared ug/L
 Analyzed Prepared ug/L
 D 11/20/12 19:00
 Analyzed 11/21/12 13:01
 D 11/21/12 13:01

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Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2012 - J12110130

TestAmerica Job ID: 240-17101-1

Client Sample ID: RI FB Lab Sample ID: 240-17101-6

Date Collected: 11/01/12 18:15 Matrix: Water

Date Received: 11/03/12 08:45

Method: 1631E - Mercury, Low Level (CVAFS)									
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Mercury	0.50	U	0.50	ng/L		11/08/12 08:45	11/13/12 09:25	1

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Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2012 - J12110130

TestAmerica Job ID: 240-17101-1

Client Sample ID: RI

Lab Sample ID: 240-17101-7

Date Collected: 11/01/12 18:20 Matrix: Water

Date Received: 11/03/12 08:45

Method: 1631E - Mercury, Low Lev	rel (CVAFS)							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	4.9		0.50	ng/L		11/08/12 08:45	11/13/12 09:37	

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Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2012 - J12110130

TestAmerica Job ID: 240-17101-1

Client Sample ID: 608 WWT FB

Lab Sample ID: 240-17101-8 Date Collected: 11/02/12 08:25

Matrix: Water

Date Received: 11/03/12 08:45

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.50	П	0.50	na/l	:	11/08/12 08:45	11/13/12 09:07	

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2012 - J12110130

TestAmerica Job ID: 240-17101-1

Client Sample ID: 608 WWT Lab Sample ID: 240-17101-9

Date Collected: 11/02/12 08:30 Matrix: Water

Date Received: 11/03/12 08:45

Method: 1631E - Mercury, Low Lev	el (CVAFS)							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	39		5.0	ng/L		11/08/12 08:45	11/13/12 08:50	10

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Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2012 - J12110130

TestAmerica Job ID: 240-17101-1

Client Sample ID: 608 WWT DUP Lab Sample ID: 240-17101-10

Date Collected: 11/02/12 08:35 Matrix: Water

Date Received: 11/03/12 08:45

Method: 1631E - Mercury, Low Lev	rel (CVAFS)							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	38		5.0	ng/L		11/08/12 08:45	11/13/12 08:54	10

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2012 - J12110130

Client Sample ID: 608 WWT DISSOLVED

TestAmerica Job ID: 240-17101-1

Lab Sample ID: 240-17101-11

Matrix: Water

Date Collected: 11/02/12 08:40 Date Received: 11/03/12 08:45

Method: 1631E - Mercury, Low Level (CVAFS) - Dissolved

Analyte Result Qualifier RLUnit D Analyzed Dil Fac Prepared Mercury 3.2 1.0 ng/L 11/05/12 08:33 11/06/12 12:42

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2012 - J12110130

TestAmerica Job ID: 240-17101-1

Client Sample ID: OUTFALL 002 FB

Lab Sample ID: 240-17101-12

Date Collected: 11/02/12 09:25 Date Received: 11/03/12 08:45

Matrix: Water

Method: 1631E - Mercury, Low Lev	rel (CVAFS)							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.50	U	0.50	ng/L		11/08/12 08:45	11/13/12 09:11	1

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2012 - J12110130

TestAmerica Job ID: 240-17101-1

Client Sample ID: OUTFALL 002

Date Collected: 11/02/12 09:30 Date Received: 11/03/12 08:45

Lab Sample ID: 240-17101-13

Matrix: Water

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte Result Qualifier RLUnit D Analyzed Dil Fac Prepared Mercury 0.50

6.4 ng/L 11/08/12 08:45 11/13/12 09:42

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2012 - J12110130

Client Sample ID: OUTFALL 002 DUP

TestAmerica Job ID: 240-17101-1

Lab Sample ID: 240-17101-14

Matrix: Water

Date Collected: 11/02/12 09:35 Date Received: 11/03/12 08:45

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte Result Qualifier RL Unit D Prepared

 Analyte
 Result
 Qualifier
 RL
 Unit
 D
 Prepared
 Analyzed
 Dil Fac

 Mercury
 6.3
 0.50
 ng/L
 11/08/12 08:45
 11/13/12 09:56
 1

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Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2012 - J12110130

TestAmerica Job ID: 240-17101-1

**Client Sample ID: TRIP BLANK** 

Lab Sample ID: 240-17101-15

Date Collected: 11/02/12 00:00 Matrix: Water Date Received: 11/03/12 08:45

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.50	U	0.50	na/L		11/08/12 08:45	11/13/12 09:17	

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Limits

77 - 123

Client Sample ID: Lab Control Sample

%Rec.

Client Sample ID: OUTFALL 002

Client Sample ID: OUTFALL 002

Client Sample ID: Method Blank

Client Sample ID: Method Blank

%Rec

85

Prep Type: Total/NA

**Prep Type: Dissolved** 

Prep Batch: 63749

Prep Batch: 64236

Prep Batch: 64236

Prep Batch: 64236

Prep Batch: 63749

Prep Batch: 63749

Dil Fac

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2012 - J12110130

Method: 1631E - Mercury, Low Level (CVAFS)

Lab Sample ID: MB 240-63749/1-A

**Matrix: Water** 

**Analysis Batch: 64023** 

мв мв

Result Qualifier RL Unit D Prepared Analyte Analyzed 0.50 ng/L 11/05/12 08:33 11/06/12 08:07 Mercury 0.50 U

> Spike Added

> > 5.00

Lab Sample ID: LCS 240-63749/2-A

**Matrix: Water** 

**Analysis Batch: 64023** 

Analyte

Lab Sample ID: MB 240-64236/1-A

**Matrix: Water** 

Mercury

**Analysis Batch: 64803** 

мв мв

Analyte

Result Qualifier RL Unit D Prepared Analyzed Dil Fac 0.50 U 0.50 ng/L 11/08/12 08:45 11/13/12 08:09 Mercury

LCS LCS

LCS LCS

4.27

Result Qualifier

Unit

ng/L

Lab Sample ID: LCS 240-64236/2-A

**Matrix: Water** 

**Analysis Batch: 64803** 

Added Analyte Result Qualifier Unit %Rec Limits 5.00 4.48 Mercury ng/L 90 77 - 123

Spike

Lab Sample ID: 240-17101-13 MS

**Matrix: Water** 

**Analysis Batch: 64803** 

Sample Sample Spike MS MS %Rec. Added Analyte Result Qualifier Result Qualifier Unit %Rec Limits 5.00 F 71 - 125 Mercury 6.4 9.90 ng/L

Lab Sample ID: 240-17101-13 MSD

**Matrix: Water** 

**Analysis Batch: 64803** 

Prep Batch: 64236 Sample Sample Spike MSD MSD RPD Added Result Qualifier Result Qualifier Analyte Unit %Rec Limits RPD Limit 9.76 F 5.00 Mercury 6 4 ng/L 67 71 - 125

Lab Sample ID: PB 240-63847/1-B PB

**Matrix: Water** 

**Analysis Batch: 64023** 

РВ РВ

Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Mercury 0.50 U 0.50 ng/L 11/05/12 08:33 11/06/12 08:44

TestAmerica Canton

### **QC Sample Results**

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2012 - J12110130

Method: 7470A - Mercury (CVAA)

Lab Sample ID: LCS 240-64079/2-A

TestAmerica Job ID: 240-17101-1

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

Prep Batch: 65839

Lab Sample ID: MB 240-64079/1-A Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA Prep Batch: 64079 Analysis Batch: 64499 мв мв

Result Qualifier RL Unit Dil Fac Analyte D Prepared Analyzed 0.20 0.20 U ug/L 11/07/12 14:35 11/09/12 10:34 Mercury

**Matrix: Water** Prep Type: Total/NA Prep Batch: 64079 Analysis Batch: 64499 Spike LCS LCS Analyte Added Result Qualifier Unit %Rec Limits Mercury 5.00 4.31 ug/L 86 81 - 123

Lab Sample ID: MB 240-65839/1-A Client Sample ID: Method Blank **Matrix: Water** Analysis Batch: 65963

мв мв Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac Mercury 0.20 U 0.20 ug/L 11/20/12 19:00 11/21/12 11:34

Lab Sample ID: LCS 240-65839/2-A **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA **Analysis Batch: 65963** Prep Batch: 65839 Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit Limits %Rec Mercury 5.00 5.09 102 ug/L 81 - 123

# **QC Association Summary**

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2012 - J12110130

TestAmerica Job ID: 240-17101-1

#### **Metals**

### Prep Batch: 63749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-17101-11	608 WWT DISSOLVED	Dissolved	Water	1631E	
LCS 240-63749/2-A	Lab Control Sample	Total/NA	Water	1631E	
MB 240-63749/1-A	Method Blank	Total/NA	Water	1631E	
PB 240-63847/1-B PB	Method Blank	Dissolved	Water	1631E	

### Analysis Batch: 64023

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-17101-11	608 WWT DISSOLVED	Dissolved	Water	1631E	63749
LCS 240-63749/2-A	Lab Control Sample	Total/NA	Water	1631E	63749
MB 240-63749/1-A	Method Blank	Total/NA	Water	1631E	63749
PB 240-63847/1-B PB	Method Blank	Dissolved	Water	1631E	63749

#### Prep Batch: 64079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method Pr	rep Batch
240-17101-2	601(8)WWT TOT	Total/NA	Water	7470A	
240-17101-3	601(8)WWT TOT DUP	Total/NA	Water	7470A	
LCS 240-64079/2-A	Lab Control Sample	Total/NA	Water	7470A	
MB 240-64079/1-A	Method Blank	Total/NA	Water	7470A	

### Prep Batch: 64236

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-17101-1	601(8)WWT	Total/NA	Water	1631E	
240-17101-4	601(7)WWT	Total/NA	Water	1631E	
240-17101-6	RI FB	Total/NA	Water	1631E	
240-17101-7	RI	Total/NA	Water	1631E	
240-17101-8	608 WWT FB	Total/NA	Water	1631E	
240-17101-9	608 WWT	Total/NA	Water	1631E	
240-17101-10	608 WWT DUP	Total/NA	Water	1631E	
240-17101-12	OUTFALL 002 FB	Total/NA	Water	1631E	
240-17101-13	OUTFALL 002	Total/NA	Water	1631E	
240-17101-13 MS	OUTFALL 002	Total/NA	Water	1631E	
240-17101-13 MSD	OUTFALL 002	Total/NA	Water	1631E	
240-17101-14	OUTFALL 002 DUP	Total/NA	Water	1631E	
240-17101-15	TRIP BLANK	Total/NA	Water	1631E	
LCS 240-64236/2-A	Lab Control Sample	Total/NA	Water	1631E	
MB 240-64236/1-A	Method Blank	Total/NA	Water	1631E	

### Analysis Batch: 64499

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-17101-2	601(8)WWT TOT	Total/NA	Water	7470A	64079
240-17101-3	601(8)WWT TOT DUP	Total/NA	Water	7470A	64079
LCS 240-64079/2-A	Lab Control Sample	Total/NA	Water	7470A	64079
MB 240-64079/1-A	Method Blank	Total/NA	Water	7470A	64079

### Analysis Batch: 64803

_					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-17101-1	601(8)WWT	Total/NA	Water	1631E	64236
240-17101-4	601(7)WWT	Total/NA	Water	1631E	64236
240-17101-6	RI FB	Total/NA	Water	1631E	64236
240-17101-7	RI	Total/NA	Water	1631E	64236
240-17101-8	608 WWT FB	Total/NA	Water	1631E	64236

TestAmerica Canton

11/23/2012

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# **QC Association Summary**

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2012 - J12110130

TestAmerica Job ID: 240-17101-1

### **Metals (Continued)**

### **Analysis Batch: 64803 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-17101-9	608 WWT	Total/NA	Water	1631E	64236
240-17101-10	608 WWT DUP	Total/NA	Water	1631E	64236
240-17101-12	OUTFALL 002 FB	Total/NA	Water	1631E	64236
240-17101-13	OUTFALL 002	Total/NA	Water	1631E	64236
240-17101-13 MS	OUTFALL 002	Total/NA	Water	1631E	64236
240-17101-13 MSD	OUTFALL 002	Total/NA	Water	1631E	64236
240-17101-14	OUTFALL 002 DUP	Total/NA	Water	1631E	64236
240-17101-15	TRIP BLANK	Total/NA	Water	1631E	64236
LCS 240-64236/2-A	Lab Control Sample	Total/NA	Water	1631E	64236
MB 240-64236/1-A	Method Blank	Total/NA	Water	1631E	64236

#### Prep Batch: 65839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-17101-5	601(7)WWT TOT	Total/NA	Water	7470A	
LCS 240-65839/2-A	Lab Control Sample	Total/NA	Water	7470A	
MB 240-65839/1-A	Method Blank	Total/NA	Water	7470A	

### Analysis Batch: 65963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-17101-5	601(7)WWT TOT	Total/NA	Water	7470A	65839
LCS 240-65839/2-A	Lab Control Sample	Total/NA	Water	7470A	65839
MB 240-65839/1-A	Method Blank	Total/NA	Water	7470Δ	65839

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Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2012 - J12110130

Client Sample ID: 601(8)WWT

Date Collected: 11/01/12 17:40 Date Received: 11/03/12 08:45

Lab Sample	ID: 240-17101-1
------------	-----------------

Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			64236	11/08/12 08:45	AS	TAL NC
Total/NA	Analysis	1631E		200000	64803	11/13/12 08:41	AS	TAL NC

### Client Sample ID: 601(8)WWT TOT

Date Collected: 11/01/12 17:50

Date Received: 11/03/12 08:45

Lab	Sampl	le ID:	240-1	17101-2	2
			Matri	ix: Wate	r

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			64079	11/07/12 14:35	LM	TAL NC
Total/NA	Analysis	7470A		1	64499	11/09/12 10:42	DH	TAL NC

#### Client Sample ID: 601(8)WWT TOT DUP Lab Sample ID: 240-17101-3 **Matrix: Water**

Date Collected: 11/01/12 17:45

Date Received: 11/03/12 08:45

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			64079	11/07/12 14:35	LM	TAL NC
Total/NA	Analysis	7470A		1	64499	11/09/12 10:44	DH	TAL NC

#### Client Sample ID: 601(7)WWT Lab Sample ID: 240-17101-4 **Matrix: Water**

Date Collected: 11/01/12 18:00

Date Received: 11/03/12 08:45

=	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			64236	11/08/12 08:45	AS	TAL NC
Total/NA	Analysis	1631E		200000	64803	11/13/12 08:46	AS	TAL NC

#### Client Sample ID: 601(7)WWT TOT Lab Sample ID: 240-17101-5

Date Collected: 11/01/12 18:05

Date Received: 11/03/12 08:45

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			65839	11/20/12 19:00	SG	TAL NC
Total/NA	Analysis	7470A		100	65963	11/21/12 13:01	DH	TAL NC

#### Client Sample ID: RI FB Lab Sample ID: 240-17101-6 **Matrix: Water**

Date Collected: 11/01/12 18:15 Date Received: 11/03/12 08:45

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			64236	11/08/12 08:45	AS	TAL NC
Total/NA	Analysis	1631E		1	64803	11/13/12 09:25	AS	TAL NC

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**Matrix: Water** 

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2012 - J12110130

Client Sample ID: RI

Lab Sample ID: 240-17101-7

Date Collected: 11/01/12 18:20 Matrix: Water

Date Received: 11/03/12 08:45

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			64236	11/08/12 08:45	AS	TAL NC
Total/NA	Analysis	1631E		1	64803	11/13/12 09:37	AS	TAL NC

Client Sample ID: 608 WWT FB Lab Sample ID: 240-17101-8

Date Collected: 11/02/12 08:25 Matrix: Water

Date Received: 11/03/12 08:45

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			64236	11/08/12 08:45	AS	TAL NC
Total/NA	Analysis	1631E		1	64803	11/13/12 09:07	AS	TAL NC

Client Sample ID: 608 WWT Lab Sample ID: 240-17101-9

Date Collected: 11/02/12 08:30 Matrix: Water

Date Received: 11/03/12 08:45

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	1631E		- <del></del>	64236	11/08/12 08:45	AS	TAL NC
Total/NA	Analysis	1631E		10	64803	11/13/12 08:50	AS	TAL NC

Client Sample ID: 608 WWT DUP

Lab Sample ID: 240-17101-10

Date Collected: 11/02/12 08:35 Matrix: Water

Date Received: 11/03/12 08:45

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			64236	11/08/12 08:45	AS	TAL NC
Total/NA	Analysis	1631E		10	64803	11/13/12 08:54	AS	TAL NC

Client Sample ID: 608 WWT DISSOLVED Lab Sample ID: 240-17101-11

Date Collected: 11/02/12 08:40 Matrix: Water

Date Received: 11/03/12 08:45

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Dissolved	Prep	1631E			63749	11/05/12 08:33	AS	TAL NC
Dissolved	Analysis	1631E		2	64023	11/06/12 12:42	AS	TAL NC

Client Sample ID: OUTFALL 002 FB Lab Sample ID: 240-17101-12

Date Collected: 11/02/12 09:25 Matrix: Water

Date Received: 11/03/12 08:45

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			64236	11/08/12 08:45	AS	TAL NC
Total/NA	Analysis	1631E		1	64803	11/13/12 09:11	AS	TAL NC

TestAmerica Canton

#### **Lab Chronicle**

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2012 - J12110130

**Client Sample ID: OUTFALL 002** 

TestAmerica Job ID: 240-17101-1

Lab Sample ID: 240-17101-13

Matrix: Water

Date Collected: 11/02/12 09:30 Date Received: 11/03/12 08:45

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			64236	11/08/12 08:45	AS	TAL NC
Total/NA	Analysis	1631E		1	64803	11/13/12 09:42	AS	TAL NC

Lab Sample ID: 240-17101-14 Client Sample ID: OUTFALL 002 DUP

Date Collected: 11/02/12 09:35 **Matrix: Water** 

Date Received: 11/03/12 08:45

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			64236	11/08/12 08:45	AS	TAL NC
Total/NA	Analysis	1631E		1	64803	11/13/12 09:56	AS	TAL NC

Lab Sample ID: 240-17101-15 **Client Sample ID: TRIP BLANK** 

Matrix: Water

Date Collected: 11/02/12 00:00 Date Received: 11/03/12 08:45

Batch Batch Dilution Batch Prepared Prep Type Туре Method Run Factor Number or Analyzed Analyst Lab 1631E 64236 11/08/12 08:45 TAL NC Total/NA Prep AS Total/NA 1631E 64803 11/13/12 09:17 TAL NC Analysis 1 AS

**Laboratory References:** 

TAL NC = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

# **Certification Summary**

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2012 - J12110130

TestAmerica Job ID: 240-17101-1

### **Laboratory: TestAmerica Canton**

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	<b>Expiration Date</b>
California	NELAC	9	01144CA	06-30-13
Connecticut	State Program	1	PH-0590	12-31-13
Florida	NELAC	4	E87225	06-30-13
Georgia	State Program	4	N/A	06-30-13
Illinois	NELAC	5	200004	07-31-13
Kansas	NELAC	7	E-10336	01-31-13
L-A-B	DoD ELAP		L2315	02-28-13
Minnesota	NELAC	5	039-999-348	12-31-12
Nevada	State Program	9	OH-000482008A	07-31-13
New Jersey	NELAC	2	OH001	06-30-13
New York	NELAC	2	10975	04-01-13
Ohio VAP	State Program	5	CL0024	01-19-14
Pennsylvania	NELAC	3	68-00340	08-31-13
Texas	NELAC	6		08-03-13
USDA	Federal		P330-11-00328	08-26-14
Virginia	NELAC	3	460175	09-14-13
Washington	State Program	10	C971	01-12-13
West Virginia DEP	State Program	3	210	12-31-12
Wisconsin	State Program	5	999518190	08-31-13

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P 0 #

TestAmerica Laboratories, Inc. **TestAmerica** HE LEADER IN ENVIRONMENTAL TESTING of 2 cocs Sample Specific Notes / Special Instructions: Date/Fime: ٦ Sample Disposal (A fee may be assessed if samples are retained longer than 1 mouth)

Return to Client (AS), Disposal By Lab Archive For

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Lab Contact:

Other

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Regulatory program:

TestAmerica Laboratory location:

0140

Chain of Custody Record

Telephone:

Site Contact:

J. Alter (URS)
Telephone:

413 350-4270

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Method of Shipment/Carrier:

Shipping/Tracking No:

Duke MF (LH; 2017 Project Number:

715055

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513 651-3440 Email:

Micm, Fort Station

Duke

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Wike Wasser

2 weeks l week 2 days

Date/Time: Company Company Received in Laboratory by: 23 Company:

Company:

(454 Amrall develat

Unknown

Poison B

ecial Instructions/QC Requirements & Comments:

Possible Hazard Identification

TAL-0018 (1008)

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608 WWT

LOS WUT DISSOLVED

WWT DUP

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DUTFALL OUFFALL OUTFALL

	Login # : [7[0]
Client Duke Energy Site Name MF	By:
Cooler Received on 1113 12 Opened on 71-3 12	(Signature)
	urier Other
TestAmerica Cooler # Soc Foam Box Client Cooler Box Other Packing material used: Bubble Wrap Foam Plastic Bag None Other	er
COOLANT: Wet Ice Blue Ice Dry Ice Water (None	
1. Cooler temperature upon receipt	
IR GUN# 1 (CF -2 °C) Observed Sample Temp. 14, 2°C Corrected Sam	aple Temp. <u>) 4, &gt;</u> C
IR GUN# 4G (CF 0 °C) Observed Sample Temp. °C Corrected Sam	aple Temp. C Multiple
IR GUN# 5G (CF -2 °C) Observed Sample Temp. °C Corrected San IR GUN# 8 (CF 0 °C) Observed Sample Temp. °C Corrected San	nple Temp. °C on Back
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity	Yes No
-Were custody seals on the outside of the cooler(s) signed & dated?	Yes No NA
-Were custody seals on the bottle(s)?	Yes (No)
3. Shippers' packing slip attached to the cooler(s)?	Yes No
<ul><li>4. Did custody papers accompany the sample(s)?</li><li>5. Were the custody papers relinquished &amp; signed in the appropriate place?</li></ul>	(Tes No
5. Were the custody papers relinquished & signed in the appropriate place?	Ves No
6. Did all bottles arrive in good condition (Unbroken)?	<b>€</b> No
7. Could all bottle labels be reconciled with the COC?	Ves No
8. Were correct bottle(s) used for the test(s) indicated?	(C) No
9. Sufficient quantity received to perform indicated analyses?	Yes No
<ul><li>10. Were sample(s) at the correct pH upon receipt?</li><li>11. Were VOAs on the COC?</li></ul>	Yes No NA
12. Were air bubbles >6 mm in any VOA vials?	Yes (No) Yes No (NA)
13. Was a trip blank present in the cooler(s)?	Yes) No
- · · · · · · · · · · · · · · · · · · ·	
Contacted PM Date by via Ver Concerning	rbal Voice Mail Other
14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES	
chigh damp-OK-LLHg + mo	4-15
	, , , , , , , , , , , , , , , , , , ,
15. SAMPLE CONDITION	
Sample(s) were received after the recommende	ed holding time had expired.
	eceived in a broken container.
Sample(s) were received with bubble >	6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVA	ATION			
Sample(s)		were further preserved i	in Sample Receivi	ng to meet
recommended pH level(s). I	Nitric Acid Lot# 031512-HNO3; Su	lfuric Acid Lot# 041911-H2SO4; S	odium Hydroxide	Lot# 121809 -
NaOH; Hydrochloric Acid I	Lot# 041911-HCl; Sodium Hydroxi	de and Zinc Acetate Lot# 100108-(	CH3COO)2ZN/Na	OH. What
time was preservative added	d to sample(s)?			
Client ID	1	<u>bH</u>	<u>Date</u>	<u>Initials</u>
6018 TOT	( 7		11-5-12	X
J- DUP	, 2		1	, )
6017705	<b>'</b> 2		1	
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Cooler#	Observed Sample Temp. °C	Corrected Sample Temp. °C	<u>IR#</u>	<u>Coolant</u>
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